

**REMARKS**

This Amendment is in response to the non-final Office action mailed October 8, 2008. A petition for one-month extension of time and payment (by credit card) for the requisite fee are submitted herewith. In the event any additional fees are necessary in connection with the present Amendment, kindly charge the cost thereof to our Deposit Account No. 13-2855.

**Status of the Claims**

Claims 1-42 are pending in the present application. Claims 1-12, 14-15, 18-20 and 35-37 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over Boger et al., U.S. Patent No. 6,453,261 ("Boger") in view of Rodems, U.S. Patent No. 4,805,126 ("Rodems"). Claims 13 and 16-17 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over Boger in view of Rodems in view of Latwesen et al., U.S. Patent No. 6,466,893 ("Latwesen"). Claims 21-34 and 38-42 are allowed.

**Response to Rejections Under 35 U.S.C. § 103**

Claims 1-12, 14-15, 18-20 and 35-37 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over Boger in view of Rodems. According to the Office action, Boger discloses a user interface facilitating remote manipulation of a ratio of lead-to-lag produced by the lead-lag filter; and operating the user interface to remotely manipulate the ratio of lead-to-lag of the lead-lag filter to produce an alteration in the process parameter to be controlled. The Office action cites column 24, lines 61-67 and column 28, lines 59-67 in support of this proposition. However, the cited passages of Boger do not support this proposition. Column 24, lines 61-67 describe the valve position being set to a predetermined high limit ("hi\_limit") and a predetermined low limit ("lo\_limit"), and indicate that the positioner 12 waits until an absolute change in pressure ("P1") from a pressure signal 40 is greater than 0.5%. Column 28, lines 59-67 describe a pneumatic

relay installed on the pneumatic actuator that prevents the valve from opening at lift signals below a minimum set control signal, eliminating low lift throttling wear. Boger further explains in the cited passage that there is a problem with this solution, namely that the pneumatic relay prevents the valve from throttling through the region between closed (seated) and the low lift set point for a short duration, which may not be damaging. Boger indicates its invention provides several seat condition diagnostic routines for the positioner 12 which continuously monitor the time the valve spends throttling at excessively low lifts.

It is respectfully submitted that setting the valve position to a predetermined high limit and a predetermined low limit and providing a positioner that waits until an absolute change in pressure is greater than 0.5% is not a user interface facilitating remote manipulation of a ratio of lead-to-lag produced by the lead-lag filter; and operating the user interface to remotely manipulate the ratio of lead-to-lag of the lead-lag filter to produce an alteration in the process parameter to be controlled. Nor is providing a pneumatic relay that prevents the valve from operating at lift signals below a minimum set control signal, or providing subroutines that continuously monitor the time the valve spends throttling at excessively low lifts. While Boger does disclose an optional user interface 50, and discloses that a user may initiate a valve seat closure diagnostic routine in which limits are set based on service conditions, there is no disclosure of operating the user interface to remotely manipulate the ratio of lead-to-lag of the lead-lag filter to produce an alteration in the process parameter to be controlled, as recited in Applicants' claim 1.

As to claim 7, the Office action indicates Boger discloses at least one adjustable interface control wherein adjustment of each of said at least one adjustable interface controls alters at least

one tuning coefficient associated with the lead-lag filter. Figs. 4-6, column 24, lines 61-67 and column 28, lines 59-67 are cited for this proposition.

As to claim 14, the Office action concedes that Boger fails to disclose a lead-lag filter in communication with the control signal and providing a user interface in operable communication with such a lead-lag filter. The Office action cites Figs. 2, 3 and 13, column 7, lines 50-67 and column 8, lines 1-7 of Rodems as disclosing a lead-lag filter in communication with the control signal and providing a user interface in operable communication with the lead-lag filter. The arrangement shown in Figs. 2, 3 and 13 of Rodems involves a plurality of filter networks, including a low pass filter network 4, three distinct notch filter networks 6, 8, and 10, and two lead-lag filter networks 12, 14, all of which are “arranged in a serial manner in such a way that each filter may be bypassed or combined with other filters to produce the desired filter characteristics.” Column 4, lines 1-4. As described at column 5, lines 43-48, an input amplifier network 2 is provided, which “allows for the adjustment of the gain of an input signal, input at system input 54, *before the signal is passed through the filter networks.*” (Emphasis added).

Claim 1, as amended, recites “providing a lead-lag filter in communication with the reference control signal prior to amplification of the reference control signal”. Claim 7, as amended, recites “a controller applying an unamplified reference control signal to an input of the lead-lag input filter ....” Claim 14, as amended, recites “a process controller supplying an unamplified reference control signal to an input of the lead-lag filter.” Claim 35, as amended, recites “supplying an unamplified reference control signal to an input of the lead-lag input filter ....”

As amended, the Applicants’ claims 1, 7, 14 and 35 are respectfully submitted to be patentably distinguishable over the proposed modification of Boger in view of Rodems. The

Applicants' amended claims indicate the lead-lag filter is in communication with an unamplified reference control signal. By contrast, the proposed modification of Boger in view of Rodems would not result in the Applicants' claims 1, 7, 14 or 35 (or the claims depending therefrom), because in Rodems, the lead-lag filter is only shown and described to be applied after amplification of the input signal.

Claims 13 and 16-17 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over Boger in view of Rodems in view of Latwesen et al. Claim 13 depends from amended claim 7, which recites "a controller applying an unamplified reference control signal to an input of the lead-lag input filter," and claims 16 and 17 depend from amended claim 14, which now recites "a process controller supplying an unamplified reference control signal to an input of the lead-lag filter." Inasmuch as Rodems only discloses applying a lead-lag filter after amplification of an input signal, it is respectfully submitted that the proposed modification of Boger in view of Rodems in view of Latwesen would not result in Applicants' claims 13, 16 or 17.

#### **Allowed Claims**

The Applicants note, with appreciation, the continued indication of allowance of claims 21-34 and 38-42.

#### **CONCLUSION**

The Examiner's reconsideration and favorable action are respectfully requested. If the Examiner has any questions that might easily be resolved by telephone, the Examiner is invited to contact the Applicants' undersigned representative at (312) 474-6300.

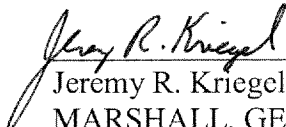
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Respectfully submitted,

  
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